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## Remarks

Claim 4 has been canceled and rewritten in independent form as claim 12, and new claim 13 depends therefrom. Claim 5 is amended to correct a typographical error. Claim 8 also has been amended, as discussed below. The amendments to claims 4 (12), 5, and 8 do not narrow the claims. New claims 12-23 have been added. Applicant respectfully requests allowance of all of the pending claims for the following reasons.

**Rejection of claim 8 under 35 U.S.C. § 112**

The examiner rejected claim 8 as indefinite because there is no basis of measuring the required percentages. Applicant notes that "conversion" is defined in the specification as "the weight percentage of the feed boiling above 370 °C which reacts per pass to a fraction boiling below 370 °C." Specification, page 8, ll. 5-7. Claim 8 has been amended to include this limitation. The amendment does not narrow the claim, but merely incorporates the definition of a term used in the claim which was already defined in the specification. Applicant respectfully requests that the rejection be withdrawn.

**Rejection of Claims 1-10 under 35 U.S.C. § 103**

The examiner rejects claims 1-10 as obvious over U.S. Patent No. 5,242,971 to Nakahama et al. (hereafter "Nakahama") further in view of U.S. Patent No. 4,943,672 to Hamner, deceased et al (hereafter "Hamner"). According to the examiner, Nakahama describes ethylene-propylene-diene rubbers which include a softener component. The examiner also contends that Nakahama teaches "process oil" as the softener component. The examiner contends that Hamner describes "a method for converting Fischer-Tropsch wax to a lubricating oil having a high viscosity index and a low pour point by first hydrotreating the wax under relatively severe conditions and thereafter hydroisomerizing the hydrotreated wax."

According to the examiner, Hamner

> is silent as to specific physical properties of the resulting oils, such as flash point, UV adsorption, evaporation loss and kinetic viscosity. However, because the process of Hamner et al is essentially the same as applicants, it is believed that the resulting oils of Hamner et al would also be essentially the same as applicant's. Hamner is thought to inherently disclose the process oils of applicant's invention.



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> resulting oils of Hamner et al would also be essentially the same as applicant's. Hamner is thought to inherently disclose the process oils of applicant's invention.

Citing Hamner, col. 2, ll. 59-col. 3, l. 18. The examiner concludes that

> it would have been obvious . . . to incorporate the atactic polypropylene and process oils suggested by Nakahama et al into the compositions of Nakahama et al to derive improved co-vulcanizability with conjugated diene rubbers, excellent weather resistance, ozone resistance and thermal aging resistance without detriment to mechanical characteristics, wear resistance and dynamic fatigue resistance, absent a clear showing of unexpected results attributable to the specific process oil. Likewise, it would have been particularly obvious to one of ordinary skill in the art to select and incorporate the conventional process oils of Hamner et al into the rubber compositions of Nakahama, et al, as a suitable process oil, absent a clear showing of unexpected results attributable to the use of the alcohol components.

Office Action, pp. 3-4.

**Response**

In order to establish that the claims are *prima facie* obvious over the prior art, the examiner must point to two things in the prior art, and not in the applicant's disclosure—(1) the suggestion of the invention, and (2) the expectation of its success. *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). See also MPEP 2143. The examiner has not met this burden.

The claims are directed to a composition comprising "an ethylene-propylene-diene rubber component," or an "EPDM" rubber component, and a process oil component. As explained in the application:

> Applicants have found that a process oil as derived from a Fischer-Tropsch synthesis product can be simply obtained **having properties which lower the hydrocarbon emissions of the finished EPDM comprising product.** Some severely hydroprocessed or synthetic paraffinic process oils as described above may also achieve this lower hydrocarbon emission. A disadvantage of these products is that they are either very expensive because they have to be synthesized from lower olefins or heavily hydroprocessed. Another advantage of the Fischer-Tropsch derived oils as compared to the heavily hydroprocessed oils is that the low temperature properties for the higher viscosity grade oils is much better making the Fischer-Tropsch derived oils more easy to handle in the process to make the EDPM comprising product.



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The examiner has not pointed to a teaching or suggestion **in Nakahama** of the claimed composition, which comprises a "an ethylene-propylene-diene rubber component and **a process oil having a kinematic viscosity at 100 °C greater than 8 cSt** and a pour point of below 10 °C." Claim 1 (emphasis added).

The examiner cannot establish a case of *prima facie* obviousness merely by arguing that the claimed process could be derived by modifying Nakahama to incorporate something not taught or suggested by Nakahama, itself, or by another cited reference. In order to establish a case of *prima facie* obviousness, the examiner has the burden to point to a teaching or suggestion in the **references themselves** that it would be desirable to make such a modification. *In re Brouwer*, 37 U.S.P.Q.2d 1663, 1666 (Fed. Cir. 1995). The examiner has not met this burden.

The examiner asserts that Hamner inherently discloses the process oils of the claimed compositions, and that it would have been obvious to a person of ordinary skill in the art to use Hamner's process oil in Nakahama's rubber compositions.

Hamner describes a method "to produce a premium lubricating oil base stock." The examiner has not pointed to any teaching or suggestion that would motivate a person of ordinary skill in the art to use Hamner's "premium lubricating oil base stock" in "an ethylene-propylene-diene rubber component." Even if one were to modify Nakahama to use Hamner's "premium lubricating oil base stock" in Nakahama's rubber component, the resulting composition would not meet the limitations of the claims because the examiner has not pointed to a teaching or suggestion in Hamner of **"a process oil having a kinematic viscosity at 100 °C greater than 8 cSt."**

The examiner states that Hamner "is silent as to specific physical properties of the resulting oils, such as flash point, UV adsorption, evaporation loss and kinetic viscosity." Office action, page 3. However, Table I in Hamner gives a variety of characteristics of the "Dewaxed Oils from Fischer-Tropsch Hydroisomerization" prepared in Hamner's Example. Hamner, col. 8, l. 22-col. 9, l. 15. **Table I shows the Viscosity (cs) "@ 210 F [which is about 99 °C] as 7.5 and 6.7, respectively. The examiner has not established that Hamner's process oil has "a kinematic viscosity at 100 °C greater than 8 cst," as**



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**required by all of the claims.** *See also Crown Operations Int'l Ltd. v. Solutia Inc.*, 62 U.S.P.Q.2d 1917, 1922-1923 (Fed Cir. 2002), *reh'g denied* 2002 U.S. Lexis 13283 (Fed. Cir. June 10, 2002). (Claim to solar film comprising no more than about two percent visible reflectance; Federal Circuit held that "[i]f the two percent limitation is inherently disclosed in the Gillery patent, it must be necessarily present and a person of ordinary skill in the art would recognize its presence." *Id.* at 1922-1923.)

The examiner bases the rejection on a combination of references, and does not even assert that all of the claim limitations are "inherently" present in a single reference. Even where a single reference is asserted, the Federal Circuit has reversed a finding of inherency by the PTO Board of Appeals, holding that "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be recognized by persons of ordinary skill.'" [Citations omitted.] *In re Robertson*, 49 U.S.P.Q.2d 1949, 1951 (Fed. Cir. 1999). The Court clearly stated that "'[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *Id.*, citations omitted. The MPEP also makes it clear that "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." [citations omitted] **MPEP 2112.** "In relying upon a the theory of inherency, **the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." MPEP 2112.** The examiner has not provided the necessary basis in fact or technical reasoning to establish that Hamner's process oil necessarily has "a kinematic viscosity at 100 °C greater than 8 cst," as required by all of the claims.

It is legally incorrect for the examiner to simply assume that Hamner's process oil inherently has "a kinematic viscosity at 100 °C greater than 8 cst," and then to argue that a case of *prima facie* obviousness has been made based on that assumption. Here, as in



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*In re Rijckaert*, "the examiner's assumptions do not constitute the disclosure of prior art." *In re Rijckaert*, 9 F.3d 1531, 1533-34, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1998).

The examiner has not pointed to a teaching in Hamner of the claimed process oil having **"a kinematic viscosity at 100 °C greater than 8 cSt."** *Id.* The examiner has not pointed to a teaching or suggestion that would motivate a person of ordinary skill in the art to modify the process oil in Hamner in the manner required to produce the claimed process oil. The examiner has not pointed to a teaching or suggestion that would motivate a person of ordinary skill in the art to modify Hamner's process oil in the manner required to produce the claimed process oil and then to combine that modified process oil with the claimed rubber composition (EPDM). The examiner certainly has not pointed to a teaching or suggestion that making the claimed combination could "lower the hydrocarbon emissions of the finished EPDM comprising product." *Id.* Under similar circumstances, the Federal Circuit reversed the PTO's finding of *prima facie* obviousness, chastising that **"a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection."** *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1998) (emphasis added).

For all of the foregoing reasons, Applicant respectfully requests that the rejection of all of the claims over Nakahama in view of Hamner be withdrawn.

**New Claims**

New claims 11-23 have been added in order to provide a more complete set of claims. The new claims are allowable for all of the foregoing reasons.

**CONCLUSION**

For all of the foregoing reasons, Applicant respectfully requests reconsideration and allowance of all of the pending claims. The commissioner is hereby authorized to charge any additional fees, including the fee for petition for extension of time, or



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to credit any overpayment to Deposit Account No. **19-1800 (File no. TS9505)**, maintained by Shell Oil Company.

Respectfully submitted,

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